

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

ORDER NO. R5-2008-\_\_\_\_\_

WASTE DISCHARGE REQUIREMENTS  
FOR  
J.G. BOSWELL TOMATO COMPANY  
BUTTONWILLOW TOMATO PROCESSING FACILITY  
KERN COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Water Board) finds that:

1. The J.G. Boswell Tomato Company—Kern, LLC (hereafter Discharger) submitted a Report of Waste Discharge (RWD) dated 3 June 2005 for the discharge of tomato processing wastewater from its Buttonwillow Tomato Processing Facility (Facility). The J.G. Boswell Tomato Company was formerly known as the Rio Bravo Tomato Company. The Executive Officer conditionally waived waste discharge requirements for the discharge under Resolution No. 82-036 and also issued Monitoring and Reporting Program No. 5-00-827 (MRP). On 1 January 2003, the Waiver expired.
2. The Facility is at the southwest corner of Interstate 5 and Highway 58 in Kern County approximately three miles east of the City of Buttonwillow, as shown on [Attachment A](#), which is attached hereto and made a part of this Order by reference. The proposed discharge area (Use Area) is within the northeast quarter of Section 20, Section 21, and the northwest quarter of Section 22 in T29S, R24E, MDB&M, as shown on [Attachment B](#), which is attached hereto and made a part of this Order by reference.
3. During the processing season, the Discharger typically processes about 1,050 tons of tomato paste daily from about 6,600 tons of raw tomatoes. The processing season typically starts in the last week of June and extends through the third week of October, depending upon crop production for the given year. Operating for up to 120 days, the Facility produces about 125,000 tons of tomato paste from about 790,000 tons of tomatoes annually. The Discharger discharges up to 7.6 million gallons of wastewater per day (mgd) and recycles it on about 618 acres of agricultural land (Use Area) that is adjacent to the Facility on the west, south, and east.
4. Tomatoes enter the Facility in trucks and are weighed and graded. The tomatoes are initially rinsed and conveyed from trucks on an elevated unloading area with wastewater from the Facility. Before being delivered to the hand-sorting area, the tomatoes are further rinsed with well water and separated from other matter. From the sorting area, tomatoes are delivered to the choppers for processing and then to mix tanks for further processing. [Attachment C](#), which is attached hereto and made a part of this Order by reference, depicts the general process flow of the processing plant and the discharge.
5. Tomatoes unsuitable for processing (culls) are removed and diverted for use as cattle feed. The Discharger estimates approximately 152 tons of tomato skins and peels are produced

daily during the processing season. Seeds and peels are separated from the wastewater by screens and diverted to trucks for use as cattle feed.

6. The RWD presents information on site conditions, wastewater streams and characteristics, and the design of the Facility.

### **Discharge of Wastewater**

7. Estimates indicate the discharge is comprised of non-contact cooling water (5%), boiler feed water (0.5%), raw product washout wastewater (90%), plant and equipment wash down (2%), irrigation and lawn watering return (1%), and other sources, e.g. flume makeup water (1.5%).
8. The Discharger reports using various chemicals in the processing activities, with the chemicals used in three general areas: the boiler, the sorting tables, and the processing equipment area. The processing equipment is cleaned before and after the processing season, and once every 40 days during the processing season. Following the cleaning of processing vessels, the vessels are filled to capacity with clean water and triple rinsed.
9. Based on data from 2005 through 2007, the average reported flow rate was about 5.7 million gallons per day (mgd) during the processing season. All discharges from the Facility are combined into the main pond. The discharge is pumped from the main pond through a pipeline to the irrigation standpipe located adjacent to the Use Area. The Discharger reports estimated total daily wastewater flow as the volume of wastewater pumped from a central sump plus the volume of water pumped from the two onsite water supply wells. This method is conservative in that it likely double-counts some of the flows. The process flow diagram attached to this Order in [Appendix C](#) identifies the central sump. The table below summarizes reported flows for the 2005 through 2007 seasons:

Source	Units	Average	Range
Facility Supply Water	mgd	3.9	1.6 - 5.3
Central Sump Wastewater	mgd	1.8	0.3 - 3.0
Estimated Total Discharge	mgd	5.7	3.5 - 7.6

10. The Discharger has submitted Self Monitoring Reports (SMRs) since 2000. The data below summarizes effluent quality from 2005 through 2007. Some effluent samples in the lower ranges may have been diluted with clean water in the irrigation standpipe.

Constituent	Units	Average	Range
Ammonia	mg/L	3.8	0.044 - 8
Biochemical Oxygen Demand	mg/L	340	23 - 1000
Boron	mg/L	< 0.1	< 0.1 - 0.1

Constituent	Units	Average	Range
Chemical Oxygen Demand	mg/L	420	38 - 1400
Chloride	mg/L	70	56 - 83
Conductivity	umhos/cm	680	300 - 1200
Nitrate	mg/L	< 0.2	< 0.2
Total Kjeldahl Nitrogen	mg/L	21	0.67 - 110
Total Nitrogen	mg/L	21	0.67 - 110
pH	Std. Units	5.6	3.7 - 7.3
Sodium	mg/L	70	70
Total Dissolved Solids	mg/L	460	260 - 870
Total Fixed Dissolved Solids	mg/L	320	260 - 410

### Water Recycling

11. The Discharger recycles wastewater as irrigation water for the 618-acre Use Area to irrigate a variety of crops. Typical crops include, but are not limited to, alfalfa, sudan grass, cotton, and wheat.
12. Wastewater pumped from the main pond into the irrigation standpipe is mixed with irrigation water according to crop requirements. The discharge is blended with a combination of supply water from two onsite supply wells. The blended wastewater is then applied to the Use Area using flood irrigation.
13. The main pond was constructed above grade and is approximately 150 feet by 200 feet. The volume of the pond is reported to be 280,000 cubic feet (approximately 2.1 million gallons). The construction details of the main pond are uncertain. It reportedly has a compacted clay or soil liner, but no information is available on its engineering design or construction, particularly regarding permeability. Soils underlying the area of the pond are classified as Panoche series clay-loam by the National Resource Conservation Service. Panoche series loams are typically described as well-drained, deep soils, but a clay-loam may contain from about 25 to 40 percent clay. A well-compacted liner of sufficient thickness constructed from such soils would have relatively low permeability.
14. Blended wastewater is applied to the 618-acre Use Area during the tomato processing season, which lasts approximately 120 days. The contract farmer reportedly applies approximately 4 inches of blended wastewater to approximately 40 acres per day by flood irrigation, with a resting period of 14 days between applications to the same area. On a given day, the BOD loading (instantaneous loading) is approximately 230 lb/acre. Including the resting period, the average BOD loading rate (cycle average loading) is approximately 15 lb/acre/day. Nitrogen from the discharge is applied at a rate of approximately 90

lb/acre/yr. The Discharger typically plants Sudan grass that, according to the Western Fertilizer Handbook, has annual nitrogen uptake rates of 325 lb/acre. The table below presents loading estimates based on Facility monitoring data from 2005 through 2007.

	<b>Units</b>	<b>Typical</b>	<b>Range</b>
Daily Discharge Area	acres	42	20 - 60
BOD Loading			
Instantaneous	lbs/acre	230	9.4 - 720
Cycle Average	lbs/acre/day	15	12 - 17
Nitrogen Loading			
Effluent	lbs/acre/year	90	56 - 140
Fertilizer	lbs/acre/year	150	66 - 290
Total	lbs/acre/year	250	120 - 430
TDS Loading			
Effluent	lbs/acre/year	1,800	1,400 - 2,300
Fertilizer	lbs/acre/year	2,400	1,400 - 3,600
Total	lbs/acre/year	4,300	2,800 - 5,400

### **Site-Specific Conditions**

15. The Facility and Use Area are in an arid climate characterized by hot, dry summers and mild winters.
16. The rainy season generally extends from November through March. Occasional rains occur during the spring and fall months, but summer months are dry. Average annual precipitation in the discharge area is about 5.3 inches, according to information published by the National Weather Service. Average annual evaporation (from a Class 'A' pan in irrigated pasture environments near Bakersfield) is 122 inches, according to information published by the California Department of Water Resources (DWR).
17. Soils in the Use Area are Milham sandy loam, Garces silt loam, Panoche clay loam, and Kimberlina fine sandy loam according to the USDA Natural Resources Conservation Service. These soils are all listed as well drained. Annual soil sampling since 2002 has shown soils to have high pH. Alkalinity and bicarbonate concentrations have decreased significantly since initial sampling.
18. US Geological Survey Professional Paper 1401-C lists Holocene flood basin deposits of clay, silt, and sand underlie the Facility. According to logs of soil borings completed in the Use Area, soils underlying the site are primarily silty sand and poorly graded sand to a depth of approximately 150 feet below ground surface (bgs).

19. The Facility and Use Area are not within a 100-year floodplain according to Federal Emergency Management Agency (FEMA) maps (Map No. 0600750975B). Ground surface at the Facility is approximately 290 feet in elevation.
20. Land use in the vicinity is primarily agricultural with the exception of some urban commercial properties across Interstate 5 from the Facility. According to DWR land use data for Kings County published in 1998, the primary agricultural products within five miles of the Use Area include grain and hay, field crops, and deciduous fruits and nuts. Significant area northeast of the Facility are listed as containing native vegetation.

### Groundwater Considerations

21. Regional groundwater is contained generally in two aquifers: the Lower Confined Aquifer and the Upper Unconfined Aquifer. According to the 1981 map *Depth to the Top of Corcoran Clay* from the Department of Water Resources, the two aquifers are separated by a confining layer (Corcoran Clay or E Clay) present beneath the Use Area at about 350 to 400 feet bgs. Driller's logs for onsite wells note a 25-foot thick clay layer at an approximate depth of 290 feet bgs. First-encountered groundwater is approximately 125 feet bgs (165 feet elevation above mean sea level).
22. The Discharger has collected groundwater samples on a quarterly basis from three monitoring wells advanced within the Use Area since 2002. The general trend in groundwater quality has been relatively poor quality on the west side of the Facility (MW-1) to relatively good quality on the east side of the Facility (MW-3). The constituent concentration gradients do not coincide with the direction of reported groundwater surface elevation gradient. The following table summarizes groundwater monitoring analytical results from 2005 through 2007.

Constituent	Units	MW-1		MW-2		MW-3	
		Average	Range	Average	Range	Average	Range
Ammonia	mg/L	< 0.1	< 0.1	< 1.0	< 1.0	< 1.0	< 1.0
Boron	mg/L	3.2	0.8 - 18	0.3	0.15 - 0.9	1.2	0.54 - 1.4
Chloride	mg/L	350	280 - 430	270	120 - 440	100	60 - 120
Conductivity	umhos/cm	2,300	2200 - 2500	1,600	800 - 2500	1,100	900 - 1100
Nitrate as Nitrogen	mg/L	24.6	19 - 29	6.9	< 1.0 - 22	13.8	12 - 15
Nitrite as Nitrogen	mg/L	0.50	< 0.1 - 0.5	0.88	< 1.0 - 2.6	< 1.0	< 1.0 - < 1.0
Total Kjeldahl Nitrogen	mg/L	0.53	< 0.1 - 0.66	1.14	< 1.0 - 5.4	0.64	< 1.0 - 1.8
pH	Std. Units	7.6	5.1 - 8	7.6	6.1 - 8.23	8.0	7.97 - 8.1
Sodium	mg/L	280	19 - 350	190	110 - 330	150	130 - 160
Total Dissolved Solids	mg/L	1,600	1500 - 1700	1,000	450 - 1700	700	590 - 750

23. Facility supply water is produced from two onsite wells, called the South Well and North Well. The South Well is screened from approximately 320 feet to 635 feet bgs and the North Well is screened from approximately 215 feet to 245 feet bgs. From 2005 to 2007, the average ratio of flow from the South Well to flow from the North Well was approximately 2:3. The table on the following page presents water quality data from annual monitoring since 2002.

	Units	South Well		North Well	
		Average	Range	Average	Range
Ammonia	mg/L	< 1.0	< 1.0	< 1.0	< 1.0
Boron	mg/L	0.11	0.1 - 0.13	0.11	0.1 - 0.12
Chloride	mg/L	33	27 - 36	75	69 - 83
Conductivity	umhos/cm	290	280 - 300	520	480 - 580
Nitrate as Nitrogen	mg/L	0.47	0.2 - 1	1.6	0.45 - 5
pH	Std. Units	8.9	8.8 - 9.1	8.9	8.7 - 9
Sodium	mg/L	55	54 - 58	92	88 - 95
Total Dissolved Solids	mg/L	183	170 - 190	320	300 - 340

24. The conductivity (EC) of the source water ranges from about 280 to 580 micromhos per centimeter (umhos/cm), with a flow-weighted average of about 430 umhos/cm. The EC of the wastewater ranges from about 300 to 1,200 umhos/cm, with an average of about 600 umhos/cm. At the highest conductivities, the EC of the discharge could exceed the water quality objective from the Basin Plan of source water EC plus 500 umhos/cm.

25. From 2000 to 2007, the average EC recorded in the groundwater monitoring wells has declined at a rate of approximately 60 umhos/cm per year.

26. Onsite groundwater monitoring has consistently shown a very steep (6 to 7 feet per hundred feet) groundwater gradient to the northwest. Such a steep gradient might be caused by natural conditions, such as regional hydrogeology or extensive pumping, or it could indicate a problem with well design or construction. There is no record on file of an investigation or explanation of why the calculated gradient should be so steep.

### **Basin Plan, Beneficial Uses, and Water Quality Objectives**

27. The *Water Quality Control Plan for the Tulare Lake Basin, 2nd Edition*, (hereafter Basin Plan) designates beneficial uses, establishes numerical and narrative water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates by reference plans and policies of the State Water Board. Pursuant to Section 13263(a) of the California Water Code (CWC), these waste discharge requirements implement the Basin Plan.

28. Water in the Tulare Lake Basin is in short supply, requiring importation of surface water from other parts of the State. The Basin Plan encourages recycling on irrigated crops wherever feasible and indicates that evaporation of reclaimable wastewater will not be an acceptable permanent disposal method where opportunity exists to replace an existing use or proposed use of fresh water with reclaimed water.
29. The Facility and Use Area are in Detailed Analysis Unit (DAU) No. 254 within the Kern County Basin hydrologic unit. The Basin Plan designates the beneficial uses of groundwater in this DAU as municipal and domestic supply, agricultural supply, industrial service and industrial process supply, water contact and non-contact water recreation supply, and wildlife habitat supply.
30. The Basin Plan includes a water quality objective for chemical constituents that requires waters designated as domestic or municipal supply to meet the MCLs specified in Title 22. The Basin Plan's incorporation of these provisions by reference is prospective, and includes future changes to the incorporated provisions as the changes take effect. The Basin Plan recognizes that the Regional Water Board may apply limits more stringent than MCLs to ensure that waters do not contain chemical constituents in concentrations that adversely affect beneficial uses.
31. The Basin Plan establishes narrative water quality objectives for Chemical Constituents, Tastes and Odors, and Toxicity. The Toxicity objective, in summary, requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life associated with designated beneficial uses. Quantifying a narrative water quality objective requires a site-specific evaluation of those constituents that have the potential to impact water quality and beneficial uses.
32. The Basin Plan identifies the greatest long-term problem facing the entire Tulare Lake Basin as the increase in salinity in groundwater, which has accelerated due to the intensive use of soil and water resources by irrigated agriculture. The Basin Plan recognizes that degradation is unavoidable until a valley wide drain is constructed to carry salts out of the basin. Until the drain is available, the Basin Plan establishes several salt management requirements, including:
- a. The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC shall not exceed the EC of the source water plus 500 umhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.
  - b. Discharges to areas that may recharge good quality groundwaters shall not exceed an EC of 1,000 umhos/cm, a chloride content of 175 mg/L, or a boron content of 1.0 mg/L.

These effluent limits are considered best practicable treatment or control (BPTC).

33. Title 22 in Table 64449 B establishes recommended, upper, and short-term ranges for EC, TDS, chloride, and sulfate. The recommended and upper ranges are 900 and 1,600 umhos/cm for EC, 500 and 1,000 mg/L for TDS, and 250 and 500 mg/L for chloride and sulfate, respectively.
34. The lists of crops in [Finding 20](#) is not intended as a definitive inventory of crops that are or could be grown in the area affected by the discharge, but are representative.

### **Antidegradation**

35. State Water Resources Control Board Resolution No. 68-16 ("Policy with Respect to Maintaining High Quality Waters of the State") (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:
- a. The degradation is consistent with the maximum benefit to the people of the State;
  - b. The degradation will not unreasonably affect present and anticipated future beneficial uses;
  - c. The degradation does not result in water quality less than that prescribed in state and regional policies, including violation of one or more water quality objectives; and
  - d. The discharger employs BPTC to minimize degradation.
36. In general, first encountered groundwater exceeds Water Quality Objectives for EC and TDS. For most constituents, including chloride, sodium, EC, and TDS, concentrations in background groundwater ([Finding 22](#)) are elevated compared to the effluent ([Finding 10](#)). The concentration of total nitrogen in the effluent is less than in the upgradient monitoring well and nitrogen is applied at well below the agronomic rate for the crops grown. The discharge of tomato processing wastewater from the Facility is not expected to degrade the beneficial uses of groundwater beneath the Use Area because the wastewater is typically of higher quality than first encountered groundwater.

### **Treatment and Control Practices**

37. The proposed discharge described in [Findings 11 through 14](#), provides treatment and control of the discharge that incorporates:
- a. Removal of solids at the Facility before discharge to the Use Area. Screened solids will be hauled offsite and used as cattle feed;
  - b. Application of wastewater lower than plant uptake rates for nitrogen and low organic loading;
  - c. Application of wastewater at rates that will not allow wastewater to stand for more than 48 hours;



- d. Blending of wastewater with freshwater to meet the agronomic requirements for crop growth; and

38. This Order establishes groundwater limitations for the Facility that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality that exceeds water quality objectives set forth in the Basin Plan.

39. According to Pollution Abatement in the Fruit and Vegetable Industry, published by the United States Environmental Protection Agency (US EPA Publication No. 625/3-77-0007) (hereafter Pollution Abatement), in applying food-processing wastewater to land for biological treatment, the loading rates for biochemical oxygen demand (BOD) shall not exceed 100 pounds per acre per day.

#### **Water Recycling Criteria**

40. State Water Board Resolution No. 77-1, Policy with Respect to Water Recycling in California, encourages recycling projects that replace or supplement the use of fresh water, and the Water Recycling Law (California Water Code Section 13500-13529.4) declares that utilization of recycled water is of primary interest to the people of the State in meeting future water needs.
41. The Basin Plan encourages recycling on irrigated crops wherever feasible and indicates that evaporation of recyclable wastewater is not an acceptable permanent disposal method where the opportunity exists to replace an existing use or proposed use of fresh water with recycled water.

#### **Designated Waste and Title 27**

42. CWC Section 13173 defines designated waste as either:
- a. Hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Section 25143 of the Health and Safety Code.
  - b. Non-hazardous waste that consists of, or contains, pollutants that, under ambient environmental conditions as a waste management unit, could be released in concentrations exceeding applicable water quality objectives or could reasonably be expected to affect beneficial uses of the waters of the state contained in the appropriate state water quality control plan.
43. Release of designated waste is subject to full containment pursuant to the requirements of Title 27, CCR, Section 20005 et seq. (hereafter "Title 27"). Title 27 Section 20090(b) exempts discharges of designated waste to land from Title 27 containment standards provided the following conditions are met:

- a. The applicable regional water board has issued waste discharge requirements, or waived such issuance;
- b. The discharge is in compliance with the applicable basin plan; and
- c. The waste is not hazardous waste and need not be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.

### **CEQA**

- 44. On 15 March 2000, the Kern County Planning Commission approved the Initial Study and adopted Negative Declaration EA LO 1-00 for Lot Line Adjustment No. 137-99 and Zone Variance No. 21, Map No. 99 for the construction of the Buttonwillow Tomato Processing Facility and the discharge/recycling of wastewater to an approximately 458-acre disposal area. Regional Water Board Staff reviewed and commented on the Negative Declaration.
- 45. This Order implements measures necessary to mitigate any adverse impacts to groundwater from operation of the Facility to less than significant levels, including:
  - a. [Effluent Limitation B.1](#), which restricts average daily flow to 4.8 mgd;
  - b. [Discharge Specification C.3](#), which stipulates the wastewater constituent loading cannot exceed reasonable agronomic uptake rates; and
  - c. [Discharge Specification C.4](#), which stipulates waste constituents cannot be released or discharged in a concentration or mass that causes violation of the Order's groundwater limitations.

### **General Findings**

- 46. Pursuant to CWC Section 13263(g), discharge is a privilege, not a right, and adoption of this Order does not create a vested right to continue the discharge.
- 47. The Regional Water Board will review this Order periodically and will revise requirements when necessary.
- 48. California Water Code Section 13267(b) states that: "In conducting an investigation specified in subdivision (a), the Regional Water Board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need

for the report and the benefits to be obtained from the reports. In requiring those reports, the Regional Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

49. The technical reports required by this Order and the attached Monitoring and Reporting Program No. [R5-2008-\\_\\_\\_\\_](#) are necessary to assure compliance with these waste discharge requirements. The Discharger operates the Facility that discharges the waste subject to this Order.
50. The California Department of Water Resources set standards for the construction and destruction of groundwater wells, as described in California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 94-81 (December 1981). These standards, and any more stringent standards adopted by the State or county pursuant to California Water Code Section 13801, apply to all monitoring wells.

### Public Notice

51. All the above and the supplemental information and details in the attached [Information Sheet](#), which is incorporated by reference herein, were considered in establishing the following conditions of discharge.
52. The Discharger and interested agencies and persons have been notified of the intent to prescribe waste discharge requirements for this discharge, and they have been provided an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
53. All comments pertaining to the discharge were heard and considered in a public meeting.

**IT IS HEREBY ORDERED** that, pursuant to Sections 13263 and 13267 of the CWC, J.G. Boswell Tomato Company, LLC and its agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

#### A. Prohibitions

1. Discharge of wastes to surface waters or surface water drainage courses is prohibited.
2. Bypass or overflow of untreated wastes, except as allowed by [Provision E.2](#) of Standard Provisions and Reporting Requirements, is prohibited.
3. Discharge of waste classified as ‘hazardous’, as defined in Section 2521(a) of Title 23, California Code of Regulations, Section 2510 et seq., is prohibited. Discharge of waste classified as ‘designated,’ as defined in California Water Code Section 13173, in a manner that causes violation of groundwater limitations, is prohibited.

4. Application of treated wastewater in a manner or location other than that described herein is prohibited.

#### **B. Effluent Limitations**

1. The monthly average discharge flow shall not exceed 4.8 mgd.
2. Average BOD loading to the Use Area shall not exceed 100 lbs/acre/day, both long-term and over the course of any discharge cycle (i.e., the time between successive applications).
3. The seasonal flow-weighted average EC of the discharge shall not exceed the flow weighted average EC of the source water plus 500 umhos/cm, or a maximum of 1000 umhos/cm, whichever is less.
4. The annual average chloride concentration of the discharge shall not exceed 150 mg/L.

#### **C. Discharge Specifications**

1. All conveyance, treatment, storage, and disposal units shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
2. Objectionable odors shall not be perceivable beyond the limits of the Use Area property at an intensity that creates or threatens to create nuisance conditions.
3. Application of waste constituents to the designated Use Area shall be at reasonable agronomic rates to preclude creation of a nuisance or degradation of groundwater, considering the crop, soil, climate, and irrigation management system. The annual nutritive loading of the designated Use Area, including the nutritive value of organic and chemical fertilizers and of the wastewater shall not exceed the annual crop demand.
4. No waste constituent shall be released or discharged, or placed where it will be released or discharged, in a concentration or in a mass that causes violation of groundwater limitations.

#### **D. Use Area Specifications**

1. The perimeter of the Use Area shall be graded to prevent ponding along public roads or other public areas and prevent runoff onto adjacent properties not owned or controlled by the Discharger.
2. No physical connection shall exist between tomato processing wastewater and any domestic water supply or domestic well, or between wastewater piping and any irrigation well that does not have an air gap or reduce pressure principle device.

3. The Use Area shall be managed to prevent breeding of mosquitoes. More specifically:
  - a. All applied irrigation water must infiltrate completely within a 48-hour period;
  - b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation; and
  - c. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store recycled water.

#### **E. Solids Specifications**

1. Any handling and storage of solids and sludge at the Facility or in the Use Area shall be temporary, and controlled and contained in a manner that minimizes leachate formation and precludes infiltration of waste constituents into soils in a mass or concentration that will violate groundwater limitations of this Order.
2. Collected screenings, sludge, and other solids removed from the liquid waste shall be disposed of in a manner approved by the Executive Officer and consistent with Title 27. Removal for further treatment, disposal, or reuse at sites (i.e., landfill, composting sites, soil amendment sites) operated in accordance with valid waste discharge requirements issued by a regional water quality control board will satisfy this specification.
3. Any proposed change in solids use or disposal practice shall be reported to the Executive Officer at least 90 days in advance of the change.

#### **F. Groundwater Limitations**

1. Release of waste constituents from any treatment or storage component associated with the Facility shall not cause or contribute to groundwater:
  - a. Containing constituent concentrations in excess of the concentrations specified below or natural background quality, whichever is greater.
    - (i) Nitrate as nitrogen of 10 mg/L;
    - (iii) For constituents identified in Title 22, the MCLs quantified therein.
  - b. Containing taste or odor-producing constituents, or toxic substances, or any other constituents, in concentrations that cause nuisance or adversely affect beneficial uses.

## G. Provisions

1. The Discharger shall comply with the Standard Provisions and Reporting Requirements for Waste Discharge Requirements, dated 1 March 1991, which are part of this Order. This attachment and its individual paragraphs are referred to as Standard Provisions(s).
2. The Discharger shall comply with Monitoring and Reporting Program (MRP) No. [R5-2008-\\_\\_\\_\\_\\_](#), which is part of this Order, and any revisions thereto as adopted by the Regional Water Board or approved by the Executive Officer. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger self-monitoring reports.
3. The Discharger shall keep at the Facility a copy of this Order, including its MRP, Information Sheet, attachments, and Standard Provisions, for reference by operating personnel. Key operating personnel shall be familiar with its contents.
4. The Discharger must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also include adequate laboratory controls and appropriate quality assurance procedures. This Provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by the Discharger only when the operation is necessary to achieve compliance with the conditions of the Order.
5. All technical reports and work plans required herein that involve planning, investigation, evaluation, or design, or other work requiring interpretation and proper application of engineering or geologic sciences, shall be prepared by or under the direction of persons registered to practice in California pursuant to California Business and Professions Code sections 6735, 7835, and 7835.1. To demonstrate compliance with sections 415 and 3065 of Title 16, CCR, all technical reports must contain a statement of the qualifications of the responsible registered professional(s). As required by these laws, completed technical reports and work plans must bear the signature(s) and seal(s) of the registered professional(s) in a manner such that all work can be clearly attributed to the professional responsible for the work.
6. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Accordingly, the Discharger shall submit to the Regional Water Board on or before each report due date the specified document or, if an action is specified, a written report detailing evidence of compliance with the date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the

Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when it returns to compliance with the time schedule. Violations may result in enforcement action, including Regional Water Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.

7. In the event of any change in control or ownership of land or waste treatment and storage facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to the appropriate Regional Water Board office.
8. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory paragraph of [Standard Provision B.3](#) and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. If approved by the Executive Officer, the transfer request will be submitted to the Regional Water Board for its consideration of transferring the ownership of this Order at one of its regularly scheduled meetings.
9. **By 1 July 2008**, the Discharger shall submit a performance demonstration for the main wastewater pond to address the lack of specific design details discussed in Finding 13. At a minimum, the performance demonstration shall include estimates of wastewater infiltration rates and demonstrate that the pond is protective of groundwater quality and that seepage from the ponds shall not contribute to constituents in groundwater exceeding groundwater limitations.
10. The pH of the discharge shall not be less than 4.5 or greater than 10 pH units for more than three consecutive 24-hour composite sampling events. In the event that the pH of the discharge is outside of this range for more than three consecutive sampling events, the Discharger shall submit a technical evaluation in its monthly SMRs documenting the pH of the blended discharge to the Use Area, and if necessary demonstrate that the effect of the discharge on soil pH will not exceed the buffering capacity of the soil profile.
11. **By 1 November 2008**, the Discharger shall develop and implement a salinity source control plan. The plan shall assess salinity sources and identify potential salt control and reduction measures. The assessment shall, at a minimum, evaluate:
  - industrial salt sources, salt loading estimates for identified sources, and potential salinity reduction measures for these sources;

- in-plant treatment processes and their effect on conductivity.

The plan shall identify salinity control and reduction measures and include a time schedule for their implementation.

12. If the Regional Water Board determines that waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of an objective for groundwater, this Order may be reopened for consideration of addition or revision of appropriate numerical effluent or groundwater limitations for the problem constituents.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on \_\_\_\_\_.

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PAMELA C. CREEDON, Executive Officer

Order Attachments:

Monitoring and Reporting Program

A Location Map – J.G. Boswell Tomato Processing Facility, Buttonwillow

B. Facility Map – J.G. Boswell Tomato Processing Facility, Buttonwillow

C. Process Flow Diagram – J.G. Boswell Tomato Processing Facility

D. Standard Provisions (1 March 1991) (separate attachment to Discharger only)  
Information Sheet

SJP 3/14/08